Differential Reinforcement
Of Lower Rates (DRL)

Caveland Regional Autism Team
Improving Services for Autistic Children

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Differential Reinforcement of Lower Rates of Behavior (DRL) is the delivery of reinforcement when the number of responses in a specific period of time is less than or equal to a prescribed limit. DRL procedures reduce, but do not eliminate behaviors.

What is a DRL?
- A specific schedule of reinforcement
- Used to decrease the rate of behaviors that are inappropriate
- Decreases inappropriate behaviors gradually
- Limits chosen should be within the student's ability and acceptable to the teacher

Guidelines for a DRL Program
- Define the behavior of concern in measureable, observable terms (e.g. use action words).
- Gather data for at least three days– Baseline must be recorded to measure the rate of inappropriate behaviors of concern.
- Establish the current rate of behavior- Determine the average number of responses based upon baseline data.
- Use the average rate to serve as the initial DRL limit.
- Establish at least two highly motivating reinforcers (e.g. *Thomas the Train* movie, computer time).
- The student will only be given these reinforcers when s/he meets the established limit.
- Prohibit the student's access to these reinfocers at school unless the limit is met.

Why should I use a DRL?
- Positive approach to change inappropriate behaviors
- Inexpensive
- Highly structured
- Should not be used with behavior that cannot be tolerated even temporarily

Implementing a DRL Program
- Determine a time period that is feasible throughout the day. (e.g. 15 min, 30 min, 1 hour, 2 hours, class period, etc)
- Inform the student the number of behaviors allowable.
- Consider providing visual supports (tokens, picture representations of reward) for student disabilities (e.g. autism, significant cognitive delays).
- Remove a token or visual representation of reinforcer each time the behavior occurs.
- At the end of the time period, provide the student with the reward if the limit is met.
- If the limit is not met, inform the student that they did not earn the reward this time, but may do so next time.
- Start time period and continue sequence above.
- Implement daily and consistently.
- As the student makes progress, increase the time period or reduce the DRL limit gradually.
- May include self-monitoring for some students.

Examples

Reducing interruptions

Jenny interrupts on the average of 9 times per 30 minutes math lesson. The limit established is 8 interruptions per math lesson. Jenny is told that that if she keeps her interruptions to eight or less, she will earn a token. At the end of the lesson, Jenny is provided her reinforcer. Over time, the criterion may be lowered to seven or less.

Reducing hitting

Jimmy hits at adults on the average of four times per hour. The limit established is three per hour. Jimmy is nonverbal and loves the *Thomas the Train* movie. He has three train cards and one universal "no" train card. Each time Jimmy hits at an adult, a card is removed from a ring. If one train card is left at the end of the hour, Jimmy may watch Thomas the Train movie for 5 minutes. If the universal "no" card is the only one left, Jimmy does not get to watch the movie and encouraged to try again.

- Other possible targets - number of times talking out of turn, number of times out of seat, number of errors in math

Resources

Alberto, P.A. & Troutman, A.C. (1995). *Applied Behavior Analysis for teachers* (Fourth Edition). Columbus, OH: Prentice Hall.

Lee. D.L. & Axelrod, S. (2005). *Behavior Modification: Basic principles* (Third Edition). Austin, TX: ProEd, Inc.